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Re: Gulfco Marine Maintenance Superfund Site, Freeport, Texas  
Unilateral Administrative Order, CERCLA Docket No. 06-05-05  
Remedial Investigation and Feasibility Study Work Plan, Field Sampling Plan, and  
Quality Assurance Project Plan Comments

Dear Mr. Pastor,

The Environmental Protection Agency (EPA), the Texas Commission on Environmental Quality (TCEQ), and the Natural Resource Trustees, including the National Oceanic and Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service, and the Texas General Land Office, have performed a review of the Remedial Investigation and Feasibility Study (RI/FS) Work Plan, Field Sampling Plan (FSP), and Quality Assurance Project Plan (QAPP), dated March 14, 2006, submitted by the Gulfco Respondents. With this letter, the EPA approves the RI/FS Work Plan, the FSP, and the QAPP with the enclosed modifications in accordance with Section XI of the Unilateral Order. Therefore, the Respondents are authorized to proceed with the RI/FS activities for the Gulfco site. The enclosed modifications shall be incorporated in the referenced documents and copies provided to the notification list.

If you have any questions, please contact me at (214) 665-8318, or send an e-mail message to [miller.garyg@epa.gov](mailto:miller.garyg@epa.gov).

Sincerely yours,

Gary Miller, P.E.  
Remediation Project Manager

cc: Susan Roddy  
Anna Treinies  
Luda Voskov (TCEQ)  
Jessica White (NOAA)  
Barry Forsythe (USFWS)

bcc: Barbara Nann (6RC-S)

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**Gulfc0 Marine Maintenance Superfund Site (Site)  
RI/FS Work Plan and FSP Modifications**

**RI/FS Work Plan:**

1. (Section 1.2, page 2): The Work Plan states that one of the RI/FS objectives is to select the appropriate alternative for site remediation. Since EPA will select the remedial action in the Record of Decision, the eighth objective shall be changed to state that the RI/FS will summarize and present the data so that an appropriate remedy, consistent with CERCLA, can be selected by EPA.
2. (Section 2.2.1, page 3): This section describes the environmental setting, but does not mention the residential area to the west of the site. The Work Plan shall be revised to state that a residential area is located south of Marlin Avenue approximately 300 feet west of the Site.
3. (Section 3.3, page 16): This section describes the purpose of a conceptual site model (CSM) in regards to human receptors' exposures to site contaminants, but not ecological receptors. The Work Plan shall be revised to state that human or ecological receptors may reasonably come into contact with site-related constituents.
4. (Section 5.6.3.h, page 29): The Work Plan states that additional deeper soil samples will be collected as needed to define the vertical extent, but not deeper than the water table or 5-feet below ground surface. There is no provision for residential areas. The Work Plan shall be revised to state that, should a COI concentration in a soil sample from the 12 to 24-inch depth interval exceed a PSV, then additional deeper soil samples will be collected as needed to define the vertical extent of that COI, but not to a depth below the water table or the surface soil depth at the sample location as defined in 30 TAC 350.4(a) (88), whichever is less.
5. (Section 5.7.2, page 44): The Work Plan states that identification of chemicals *can be primarily* based on exceedences of criteria by the maximum soil and sediment concentrations. The Work plan shall be revised to state that identification of chemicals *is based* rather than can be primarily based to clarify the process.
6. (Table 16 and Table 17, page 1 of 6): The EPA Region 6 soil screening level for arsenic is given as 22 mg/kg, which is the non-cancer endpoint. The arsenic screening level for the cancer endpoint is 0.39 mg/kg. The table shall be revised to show the more protective cancer endpoint of 0.39 mg/kg, and the preliminary screening value shall be revised accordingly.

7. (Table 16 and Table 17, page 4 of 6): The EPA Region 6 soil screening level for vinyl chloride is given as 0.15 mg/kg. The current screening level for vinyl chloride 0.043 mg/kg. The table shall be revised to show the screening level as 0.043 mg/kg, and the preliminary screening value shall be revised accordingly.
8. (Table 17, page 1 of 6): Several of the metals show NV, or “no value”, for the preliminary screening values even though potential screens are shown. The preliminary screening values shall be corrected for iron, mercury, and thallium to select the lowest of the potential screens.
9. (Table 19): This table contains potential screening values for potable groundwater, but does not include MCLs. A footnote shall be added to the table stating that the TCEQ groundwater PCL ( $^{GW}GW_{ing}$ ) is based on primary MCLs where available.
10. (Table 20): A footnote to the table gives the reference for the “Human Health Surface Water Risk-Based Exposure Limits” as being from a TCEQ table dated May 19, 2005. The footnote shall be changed to the following reference: Aquatic Life Surface Water RBEL Table and Human Health Surface Water RBEL Table updated October 2005, available at <http://www.tceq.state.tx.us/assets/public/remediation/trrp/swrbelstable.pdf>. In addition, the values for n-nitroso-di-n-propylamine and n-nitroso-diphenylamine shall be corrected.
11. (Figure 7 and 8): The figures do not specify the potential on-site receptors. The figures shall be revised to include this (i.e., industrial worker). Also, Figure 8 shall specify the potential off-site receptors.
12. (Figure 9): The terrestrial conceptual site model does not include amphibians as potential receptors. There is no explanation as to why they are not included. A footnote shall be added to the figure stating that it is unlikely that amphibians will be present at the terrestrial portions of the Site because the area is a transitional march and the brackishness of the wetlands is not suitable for egg and juvenile development for most amphibians.
13. (Figure 11): The process flow chart for sediment samples allows constituents to be removed from the fish tissue analyte list if they are less than background and the sample quantitation limit. This flow chart shall be revised to correspond with the Work Plan text on page 38, namely, that “fish and crab samples will be analyzed for those compounds detected in the site sediment samples above the sample quantitation limit” (SQL) and J-flagged data below the SQL for bioaccumulative compounds. Background results shall not be considered in the determination of the fish and crab tissue analyte list.

#### **Field Sampling Plan:**

1. The preceding RI/FS Work Plan modifications shall be applied to the Sampling and Analysis Plan, Volume 1, Field Sampling Plan, as follows:
  - a. Table B-1: Change arsenic PSV to 0.39 mg/kg
  - b. Table B-3: Change PSV for n-nitroso-di-n-propylamine to 5.1E-03 mg/L and change PSV for n-nitroso-diphenylamine to 6.0E-02 mg/L.
2. (Section 5.5.2, Groundwater Sampling, page 27): This section states that sampling can be conducted shortly after installation and development, and that before sampling the water level will be measured. Since the water level data will be used to construct potentiometric surface maps, it's important that the water levels be stabilized before measurement. The Workplan shall be revised to note that water levels will be measured a sufficient time after well development to allow for water level stabilization.
3. (Table 2): This table shows that NAPL will be sampled for VOCs, SVOCs, and PCBs. Since NAPL will be sampled for pesticides instead of PCBs, as stated in the text, the table shall be revised to show this.
4. (Table B-1): o-Cresol is missing from this table on analytical methods for soil. The table shall be revised to include o-cresol.
5. (Table B-3, page 1 of 7): This table shows a preliminary screening value for arsenic in surface water of 7.8E-02 mg/L. The preliminary screening value for arsenic is 1.4E-03 mg/L from Table 20 in the RI/FS Workplan. The arsenic value shall be changed to 1.4E-03 mg/L.
6. (Table B-3, page 2 of 7): This table shows a preliminary screening value for Aldrin in surface water of 1.3E-04 mg/L. The preliminary screening value for Aldrin is 2.8E-06 mg/L from Table 20 in the RI/FS Workplan. The Aldrin value shall be changed to 2.8E-06 mg/L.
7. (Table B-3, page 3 of 7): This table shows NV or "no value" for a preliminary screening value for 1,2-dibromoethane in surface water. The preliminary screening value for 1,2-dibromoethane is 2.23E-04 mg/L from Table 20 in the RI/FS Workplan. The 1,2-dibromoethane value shall be changed to 2.23E-04 mg/L.
8. (Table B-4, page 2 of 6): This table shows NV or "no value" for a preliminary screening value for gamma-chlordane in sediment. The preliminary screening value for gamma-chlordane is 4.1E+01 mg/L from Table 21 in the RI/FS Workplan. The gamma-chlordane value shall be changed to 4.1E+01 mg/L.
9. (Figure 6): According to Figure 6, only judgmental soil samples will be collected in the grid block containing the electrical shed. These judgmental samples will be analyzed

only for PCBs according to Table 2. Therefore, the plan does not provide for VOC, SVOC, metals, or pesticides analysis from this grid block. The plan shall be revised to add VOC, SVOC, metals, and pesticides analysis from the northwest and southeast sample locations in this grid block.

## **QUALITY ASSURANCE PROJECT PLAN (QAPP) COMMENTS**

### **Comments:**

1. The preceding RI/FS Work Plan and FSP comments shall be applied to the Sampling and Analysis Plan, Volume II, Quality Assurance Project Plan as appropriate.